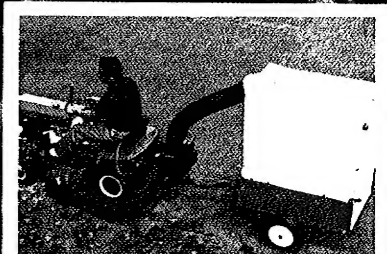
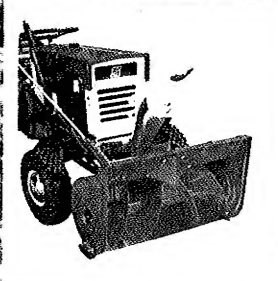


# ***Simplicity®***

OWNER'S MANUAL

## **19" & 21" ROTARY MOWERS**

MFG. NO. 679  
MFG. NO. 680  
MFG. NO. 666  
MFG. NO. 681  
MFG. NO. 676  
MFG. NO. 678



## CONGRATULATIONS!

... on your choice of *SIMPLICITY* equipment.

*This great new product is engineered with imagination and built with integrity to assure you maximum service and performance for years to come. To completely understand the operation of your equipment and to take full advantage of its many fine built-in features, study this instruction manual thoroughly before operating the machine. The little time you spend reading now will repay you many times over in the time you save and the satisfaction you gain in using your equipment properly and safely.*

## SAFETY FIRST

### PROTECT YOURSELF AND OTHERS BY FOLLOWING THESE SAFETY RULES

- \* **ALWAYS** inspect the area to be worked — note all grades, obstructions, wet spots and other potential hazards and pick up all foreign objects before mowing.
- \* **ALWAYS** keep children and pets a good, safe distance away.
- \* **ALWAYS** know your controls and how to stop quickly in an emergency — read the owner's manual thoroughly.
- \* **NEVER** allow anyone to operate the equipment without full instruction and knowledge of safe operating procedures.
- \* **NEVER** handle gasoline carelessly. Use an approved container and fill the tank out of doors. Wipe up spilled gasoline. Do not smoke while fueling the engine.
- \* **NEVER** add gasoline to a running engine. Stop engine and allow it to cool a few minutes before adding fuel. Replace filler cap securely.
- \* **NEVER** operate equipment unless all guards and shields are in place.
- \* **ALWAYS** keep hands, feet and clothing away from power driven parts.
- \* **ALWAYS** disengage the power take off drives, stop the engine, and remove the key (on electric start models) before leaving the machine even if only for a moment.
- \* **ALWAYS** stop the engine before servicing or adjusting machine or equipment. Remove the spark plug wire on walk behind mowers.
- \* **ALWAYS** stop the engine and inspect for damage immediately after striking an obstruction or foreign object. Repair damage before restarting.
- \* **NEVER** overspeed the engine or alter governor settings. Excessive speed is always unsafe and shortens engine life.
- \* **ALWAYS** properly maintain the equipment. Check all fasteners, guards and parts.
- \* Mow across slopes with walk behind units and up and down them with riding units. Do not use power mowers on slopes greater than 40% grade. (Four feet vertically for each 10 feet horizontally.)
- \* **ALWAYS** stop the engine on walk behind units or disengage the blade drive and raise the mower on riding units before crossing gravel drives.
- \* Do not operate the engine where carbon monoxide can collect.



**BUILT IN SAFETY FEATURES CAN BE  
EFFECTIVE ONLY IF PROPERLY  
MAINTAINED AND UTILIZED.**

## SIMPLICITY'S NEW EQUIPMENT WARRANTY

The Company warrants Simplicity products to be free from defects in material and workmanship, except the Company makes no warranty, express or implied, with respect to tires, engines, generators and voltage regulators, which are warranted by their respective manufacturers. Any part covered by this warranty which is proven defective within one year (45 days for equipment used for rental, municipal or commercial purposes) under normal use, from date of purchase, will be replaced without charge, provided such part is returned to the factory, (if requested), and is found to be defective upon examination at the factory. This warranty does not apply to any Simplicity products altered outside of the Simplicity factory. THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, OR OTHERWISE. The Company's obligation under its warranty is strictly and exclusively limited to the replacement of such parts, and in no event shall the Company be liable for any other damages, whether direct, immediate, incidental, special, or consequential. Simplicity Manufacturing Company, Inc., reserves the right to modify or change specifications without prior notification. There are no warranties which extend beyond the description of any Simplicity product.

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## PROTECT YOURSELF AND OTHERS

Read the Operating and Service Instruction Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment.

Never allow children or young teenagers to operate a power mower.

Keep the area of operation clear of all persons, particularly small children, and pets.

Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wire, bones and other foreign objects.

Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.

Check fuel before starting engine. Do not fill gasoline tank when engine is running or while engine is still hot. Wipe off any spilled gasoline before starting engine.

Disengage self-propelling unit or drive clutch on units so equipped before starting engine.

Never attempt to make a wheel height adjustment while motor is running.

Mow only in daylight or in good artificial light.

Never operate equipment in wet grass. Always be sure of your footing; keep a firm hold on handle and walk, never run.

Do not change engine governor settings or overspeed engine.

Do not put hands or feet near or under rotating parts. Keep clear of discharge opening at all times.

Stop blade (s) when crossing gravel drive, walks or roads.

After striking a foreign object stop the mower, remove spark plug wire from the plug. Thoroughly inspect the mower for any damage, and repair the damage before repair the damage before restarting and operating the mower.

If your equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.

Stop motor whenever you leave the equipment. Before cleaning mower housing, making any repairs or inspection. Make certain blade and all moving parts have stopped. Disconnect spark plug wire and keep wire away from plug to prevent accidental starting.

Do not run motor indoors.

Shut motor off when removing grass catches and unclogging chute.

(For walk behind mowers only) Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Excessively steep slopes should not be mowed.

Check blade and engine mounting bolts for proper tightness at frequent intervals.

Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.

Never store equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.

To reduce fire hazard keep engine free of grass, leaves or excessive grease.

Congratulations on your purchase of the fine Simplicity mower. We know you bought this machine to make your grass mowing easier. You bought the right machine to do it. So that you can get the very most from your purchase, we would consider it a personal favor if you would take time to study this manual before using your mower. It will increase the chance of adding you to our long list of satisfied customers. Also, before allowing others to operate your mower be sure they read and understand the safety precautions and operation section of this manual. For your own safety and that of your family and friends, periodically review the safety tips found on the inside front cover and page one of this manual.

#### CONTROL BAR

To control ground speed independently of engine speed. Disengages rear wheel drive for easy turning. Soft clutch action for unmarked lawns.

#### GRASS CATCHER

Fills completely to top, holds a full bushel. Dust-filtering bag has a zipper for easy unloading.

#### VERTICAL PULL MANUAL STARTER

Geared to reduce pull force by 25% - naturally easier and safer than side-pull starters. (On manual mowers only)

#### BRIGGS AND STRATTON EASY-SPIN ENGINE

Automatic choke, protected high-carbon nodular iron crankshaft, zinc flywheel key.

#### THROUGH-DECK CATCHING AND RIGHT FRONT CORNER DISCHARGE

Permits mowing at 20% lower blade tip speed, reducing the energy of thrown objects.

#### PRE-STRESSED BLADE

Clamped in a rigid stiffener to reduce flutter and fatigue failure.

#### SEALED LEAD-ACID BATTERY

(Electric start models only) Mower can be tipped without danger of spilling acid. Requires no maintenance other than charging.

#### ADJUSTABLE HANDLE

Can be folded down to engine cover, moved forward to straight-up position and adjusted for height - all without tools.

#### IGNITION KEY

(Electric start models only) Start and stop engine with no effort. Removable to prevent unauthorized starts.

#### SPEED CONTROL SELECTOR

One simple control for fuss-free engine performance.

#### REAR WHEEL DRIVE

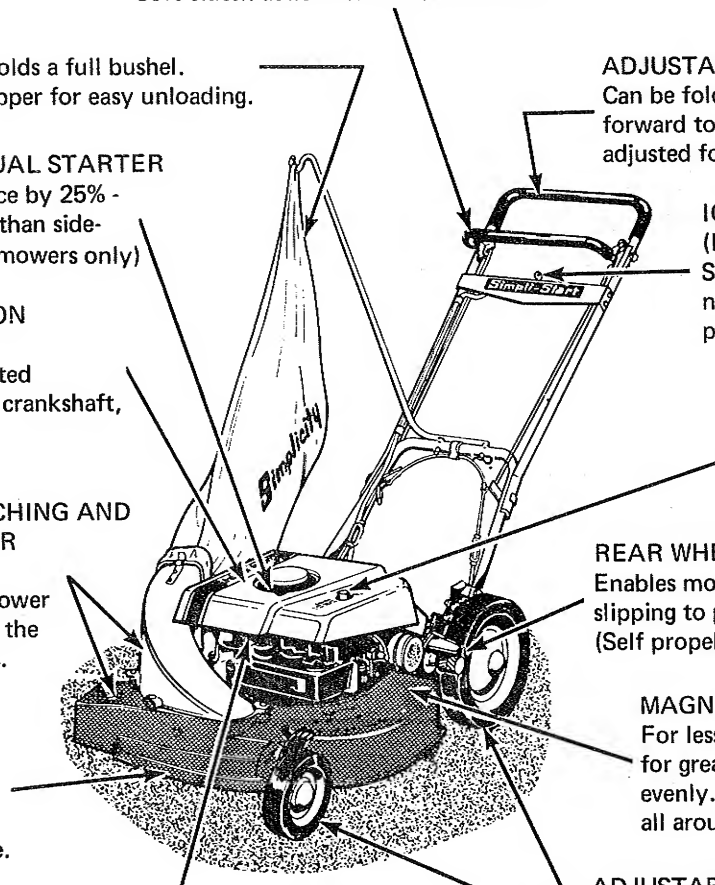
Enables mower to climb a 40° slope, without slipping to prevent wheel marks on lawn. (Self propelled models only)

#### MAGNESIUM DECK

For less weight. 3-3/8" deep above blade for greater air mixing to spread clippings evenly. Deck extends well below blade all around for added safety.

#### ADJUSTABLE WHEELS

6 positions for selecting cutting height from 7/8" to 2-7/8". No tools - instant cutting height adjusters.





# OPERATION

## CONTROLS AND HOW TO USE THEM

Picture yourself standing behind your Simplicity mower. Before starting the engine, let's learn how to use each of the convenient controls.

**1. Ignition Switch (Electric Start Models Only):** When turned clockwise to the first position, the ignition is turned on. Turn past this position to actuate the starter. Release the key as soon as the engine starts. Return the key to the vertical position to stop the engine. (See Figures 1 & 3).

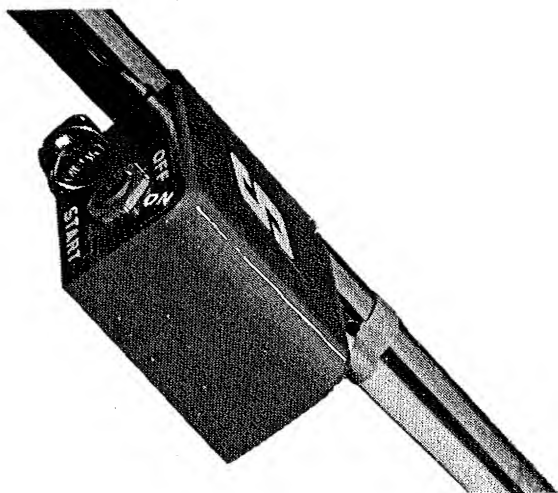


FIGURE 1

**2. Speed Control Knob:** Turn the speed control knob clockwise to the start position before attempting to start the engine. Engine speed is controlled by the position of the knob. Turn the control knob so the engine runs at three-fourths to full engine speed when mowing. On manual start models the engine is stopped by turning the knob counter-clockwise to the stop position. Electric start models can be stopped by turning the key to the OFF position. (See Figure 2).

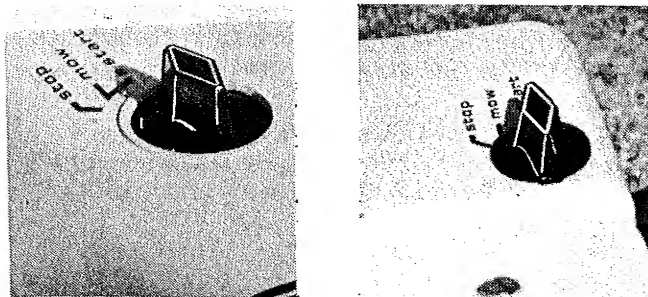


FIGURE 2

**3. Touch-O-Matic Control Bar: (Self-propelled Models Only):** Ground speed is controlled by the Touch-O-Matic control bar located on the mower handles. Push the bar forward to increase ground speed and pull back to decrease. The mower is designed to be propelled by fully engaging the drive

rollers and the rear wheels for maximum speed or allowing a variable amount of roller slippage for intermediate and slower speed. Pulling the bar all the way back disengages the rollers completely to stop forward movement. Push the bar fully forward over center to reduce effort on long, straight stretches and merely guide the mower.

(See Figure 3).

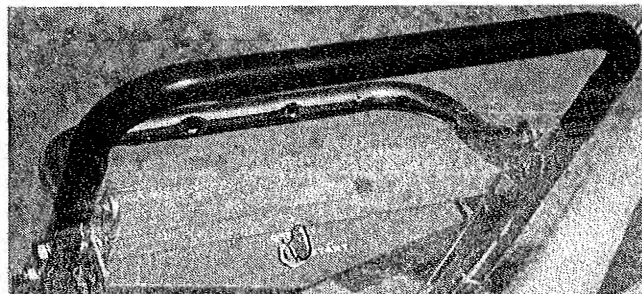


FIGURE 3

## BEFORE STARTING

Though your Simplicity dealer may have performed the before starting checks listed below, we suggest you personally check each one so that you will become familiar with them and also to insure that your mower is ready to go the first time you use it.

**BEFORE SERVICING YOUR MOWER, SET THE SPEED CONTROL AT STOP AND REMOVE THE SPARK PLUG WIRE FROM THE SPARK PLUG.**

On 21" mowers, tip the starter handle rearward. Grasp the front edge of the engine cover and swing it up and back. On self-propelled models, separate the control rods to allow the cover to swing back fully.

**1. Engine Oil:** Be sure the oil in the engine crankcase is at the proper level. See your Briggs and Stratton manual and page 12 of this manual (Figure 4 ).



FIGURE 4

**2. Fuel Supply:** Check the fuel supply. Fill tank completely with clean, fresh, leaded or non-leaded "Regular" grade automotive gasoline. (DO NOT MIX OIL WITH GASOLINE). Store gasoline in small quantities as prolonged storage produces gum. (Figure 5).

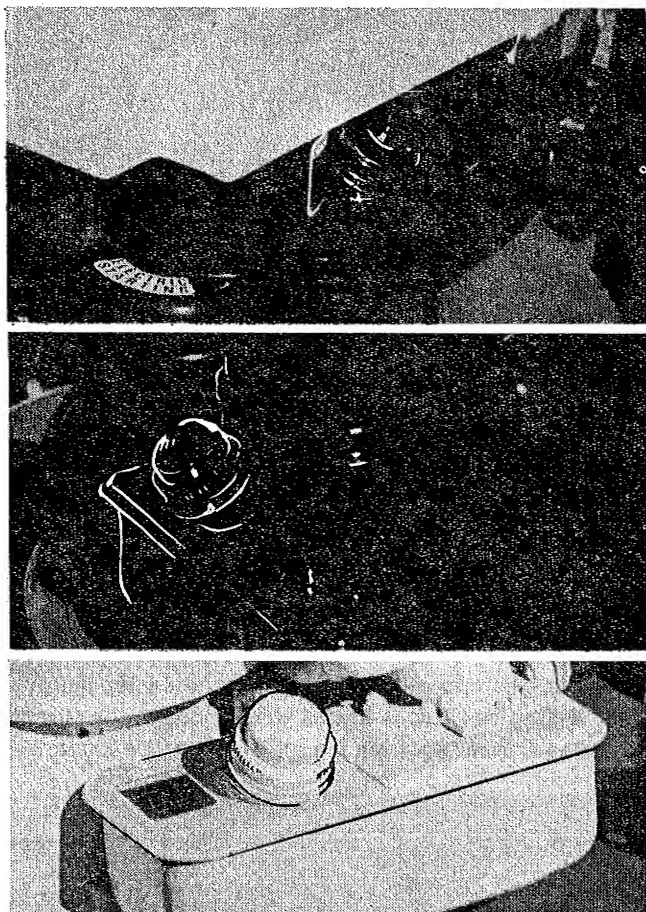


FIGURE 5

**3. Battery:** On electric start models plug the charging unit into a 110 volt, 60 cycle A.C. outlet. Leave the charger plugged in for at least 24 hours before starting the mower. The charger may be left on longer without damage to the battery. (See Figure 6).

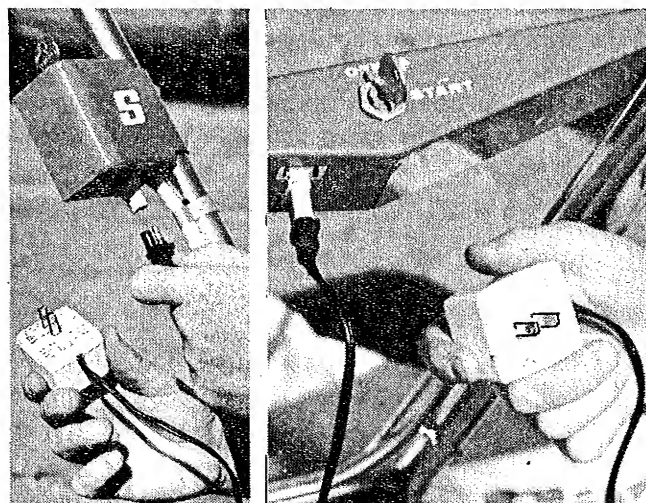


FIGURE 6

**4. Cutting Height Selection:** ALL MODELS: Most lawns should be mowed to keep the height of the grass between 2 to 2½ inches high. To keep a green lawn, NEVER mow more than one-third off the height of the grass or a maximum of 1 inch in one mowing. For extremely tall grass, set the cutting height at MAXIMUM for the first mowing, then reset to the desired height and mow again. NEVER CHANGE HEIGHT SETTING WHILE ENGINE IS RUNNING. (See page 9 for Height Adjustment).

**5. Replace the Spark Plug Wire:**

## STARTING THE ENGINE

Move the mower onto a drive, sidewalk or an area where the grass has been mowed. The engine will not start if the blade is in deep grass.

1. On self-propelled models be sure the Touch-O-Matic bar is pulled all the way to the rear in the disengaged position. (See Figure 7).



FIGURE 7

2. Rotate the speed control knob clockwise to the start position. (See Figure 8).

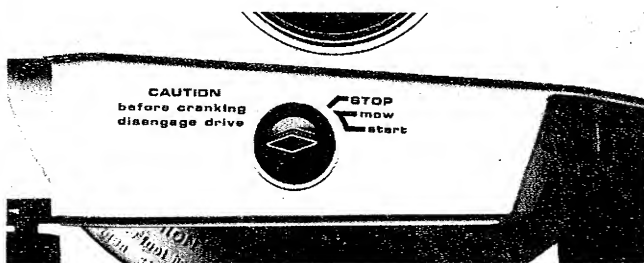


FIGURE 8

3. Any time the engine has been run until out of fuel, make starting again easy by proceeding as follows: Fill the tank to the top. Tilt the mower until the spark plug side is about 6 inches below the opposite side for a few seconds. This insures a full fuel supply to the carburetor.

4. **ELECTRIC START MODELS:** Insert the ignition key and turn it clockwise to START position. Release the key as soon as the engine starts. It automatically returns to ON. If the battery is insufficiently charged to crank the motor,

do not continue the attempt to start or damage to the battery may result. (See Figure 9).

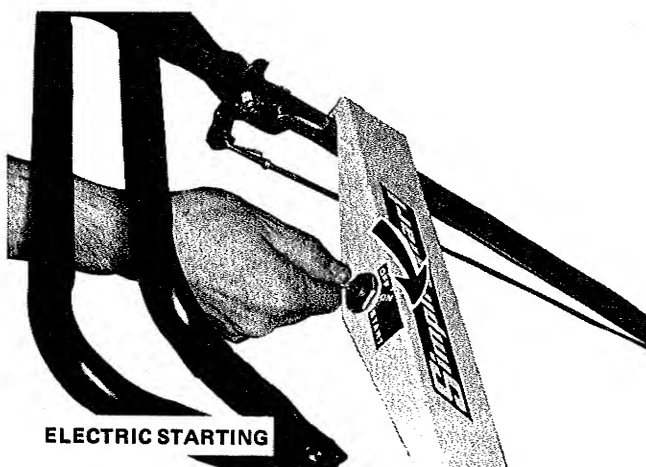


FIGURE 9

**MANUAL START MODELS:** Place your right foot on the mower deck where indicated. Keep your left foot well away from the mower. Grasp the starter handle firmly with your right hand and pull upward. Return the handle to the cover by hand. **DO NOT RELEASE THE HANDLE WITH THE ROPE EXTENDED.** (See Figure 10).

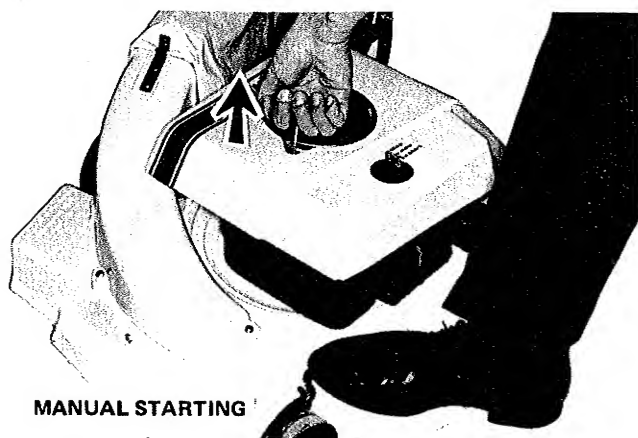


FIGURE 10

### STOPPING THE ENGINE

**ELECTRIC START:** Turn the key to the vertical "OFF" position, remove the key to prevent unauthorized starts.

**MANUAL START:** Turn the speed control knob counter-clockwise to the stop position.

### CLIPPING DISPOSITION

**DISPERSAL:** If the clippings are to remain on the lawn, mow with the discharge chute toward the area already cut. If the clippings will be raked up later and the grass is at a normal height of 3 inches or less, it is practical to disperse the clippings into the un-cut area. There they will be concentrated in the center of the lawn for minimum raking. Only the top mower cover is required. (See Figure 11).

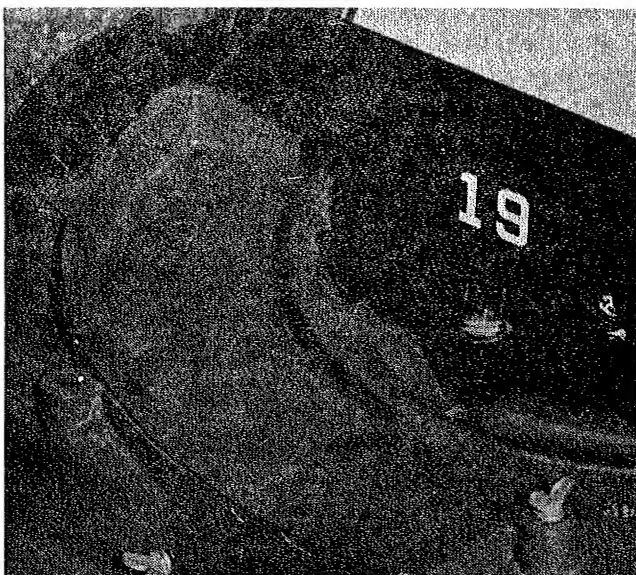


FIGURE 11

**CATCHING:** To eliminate the need for raking, the Simplicity grass catcher can be easily installed (Standard Equipment, except Mfg. No. 678). Proceed as follows:

1. Remove the spark plug wire as a safety precaution.
2. Remove the wing nut from the mower deck cover by turning in a counter-clockwise direction. Raise the housing cover slightly and pull it toward the left side of the mower to free the slotted tabs from the spring bolts. (See Figure 12).

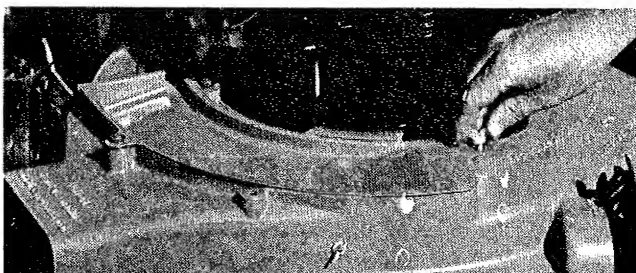


FIGURE 12

3. Install the grass deflector, placing the slotted tab under the outer spring bolt. Align the deflector hole with the hole at the front of the mower housing and secure thumb screw, finger tight. (See Figure 13). Position the grass catcher housing over the opening in the mower deck and slide the slotted tabs under the spring bolts. Secure with thumb screw, finger tight. (See Figure 14).

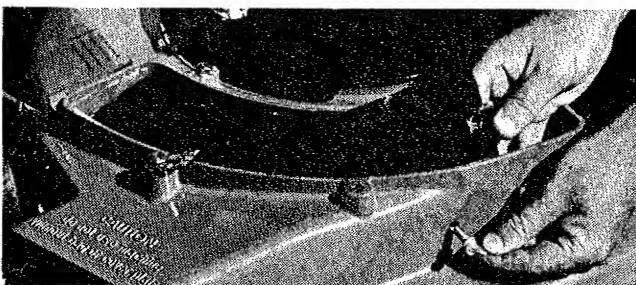


FIGURE 13



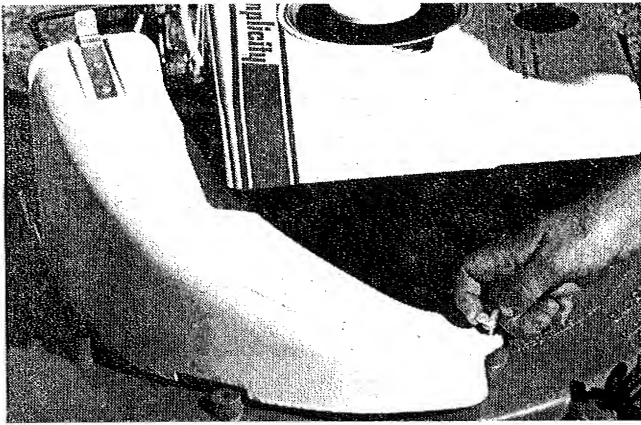


FIGURE 14

4. Install the front bag guard next to the right front wheel position as shown in Figure 15 and secure with the hardware required. The guard must hold the bag clear of the wheel.

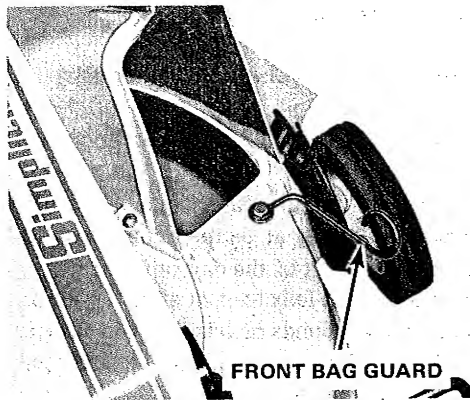


FIGURE 15

5. Install the rear bag guard on the right rear bracket with hardware provided. Guard must hang vertically over outside of wheel (See Figure 16).



FIGURE 16

6. Insert the two legs of the bag support rod into the holes in the handle lower cross-bar. Install the spring clip securely in the left leg. (See Figure 17).

7. Position the bottom edge of the open bag end between the lugs on the deck and chute opening. Lift the top spring clip and swing the top of the bag, open end forward, against the lugs on the chute. Release the spring clip - and make

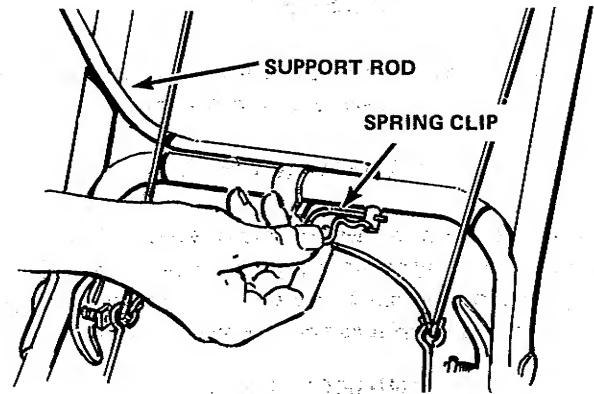


FIGURE 17

sure it is securely engaged in the bag neck. Place the loop at the zipped end of the bag over the hook on the support rod.

8. When using the grass catcher or leaf bag on 19" mowers, be sure the baffle plate is in place on the engine muffler. Be sure it is turned so the baffle directs the exhaust gasses straight back, keeping them away from the operators face. (See Figure 18).

9. Replace the spark plug wire.

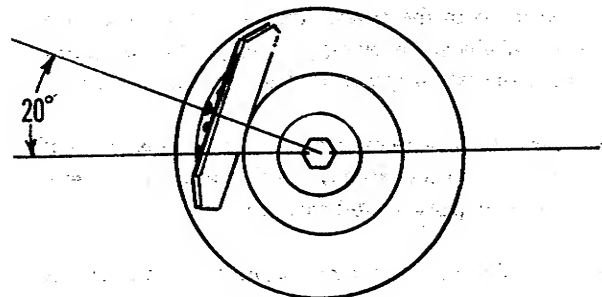


FIGURE 18

**Mulching:** As the mowing season progresses and the grass becomes less juicy, the grass clippings may be left on the lawn without harming lawn appearance or new lawn growth. To accomplish this, use your Simplicity as a mulcher. To use the mower as a mulcher, the grass deflector plate (See Figure 13) and mower deck cover (See Figure 19) should be installed. The fine, evenly spread clippings will add valuable nutrients to the soil

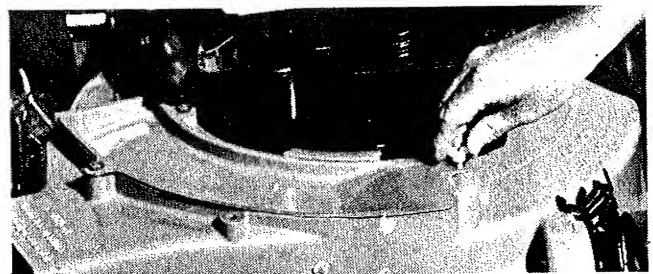


FIGURE 19

## ENGINE SPEED

The engine speed control knob may be set anywhere in the mow range to suit varying mowing conditions.

## NORMAL SPEED

The lowest speed in the mow range (toward stop) is satisfactory for cutting common types of grass at normal height. This speed setting minimizes the noise level and fuel consumption, and is recommended for average conditions.

## HIGHER SPEEDS

Higher engine speed may be more effective under special conditions. For instance, light, wispy grass - such as bahia or rye - may require full engine speed for clean cutting. Very heavy or tall grass should be cut at higher engine speeds. If the grass is damp, the catcher bag will fill better at higher speed.

## MOWING HINTS

For mowing, average engine speed is from three-fourths to full. For cleaning leaves or bagging litter, run at full speed for greater blowing action.

For the first use of the mower, choose a smooth, level area. Cut long, straight strips overlapping slightly. After getting used to the operation, proceed to inclines or rough ground.

Approach sunken flower beds, edges of drives and walks head-on. Let front of mower extend over the edge slightly on each pass. Overhanging grass will be cut cleanly.

Guide the left side of the mower along trees, posts or other obstacles and follow the contour as closely as possible.

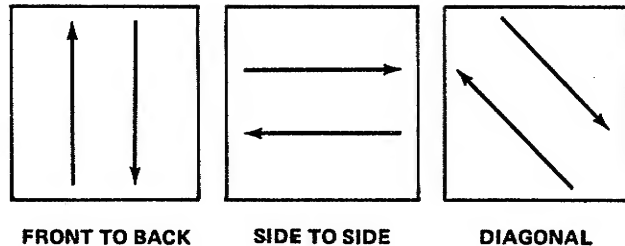
For heavy growth, raise the height setting (See Adjustments) to the highest cutting position, recut at desired position.

**Wet, Thick or Heavy Grass:** If mowing without the catcher assembly, start at the outer edge of the area and mow counterclockwise so that clippings are always deposited on cut grass. Less engine power is required and a more even cut free of streaks will result.

**Height Setting:** On thick or springy grass, do not set the cutting height too low. The wheels may sink into the lawn, resulting in too short a cut.

For best appearance, new grass should be cut in the afternoon or evening when it is free of moisture.

Change patterns occasionally to eliminate matting, graining and a corrugated appearance. See diagrams.



FRONT TO BACK

SIDE TO SIDE

DIAGONAL

## TROUBLE SHOOTING

If the engine fails to start, check the following:

1. Fuel supply is ample. If the engine has been run until out of fuel, the tank must be filled to the top to fill the carburetor. (See "BEFORE STARTING")
2. Speed control is set at START.
3. Spark plug wire is connected.
4. Battery plug is fully inserted. (Electric Start Models)

If none of these is the trouble, the engine may be flooded.

**FLOODING:** The engine features a unique automatic choke to provide easiest starting at temperatures between 30° and 100°F. at the first start of the day or immediately after stopping the engine. If it fails to start after 5 pulls on the manual starter or after 5 seconds of cranking the electric starter, it may be flooded. Flooding may have also been caused by the mower being tipped.

To clear a flooded engine:

1. Set the speed control knob at STOP. This blocks the choke open.
2. Pull the manual starter handle 6 times or crank the electric starter for 6 seconds by turning the ignition key.
3. Set the speed control knob at START and follow the normal starting procedure described previously.

If the mower will not drive itself (self-propelled models) check the following:

1. The drive rollers may be slipping at the tires. Adjust the control rod burnbuckles. (See Adjustments, page 10)
2. The drive belt may be slipping. The belt may be wet. If this happens, letting the drive run a few minutes will dry the belt. If oil has been spilled on the belt, use Energine or a similar cleaning fluid on a rag to clean it. An alternate method is to sprinkle a handful of Frizit or Kitty-Litter compound on the belt while running.

# ADJUSTMENTS

## CUTTING HEIGHT ADJUSTMENT

### Front Wheel Adjustment (except Mfg. No. 678)

1. Make sure the speed control is in STOP position or ignition key is removed. Grasp the front lip of the mower deck and lift the front of the mower upward. Push the adjusting tab toward the wheel, out of its notch.

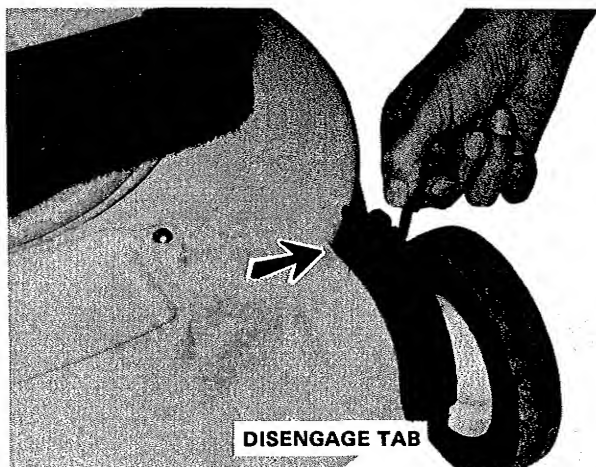


FIGURE 20

2. Rotate the entire wheel assembly in the "Raise" direction to the desired notch and release the tab. Be sure the tab is firmly positioned in the notch.

Repeat the procedure for the other front wheel, making sure the spring is engaged in the same notch as the opposite wheel. The front wheel height adjusters move in opposite directions.

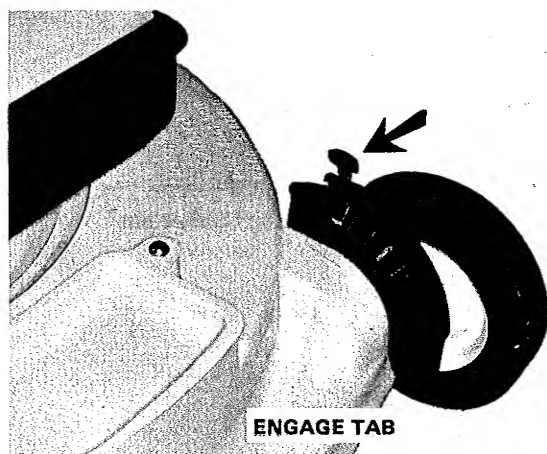


FIGURE 21

### Rear Wheel Adjustment (except Mfg. No. 678)

Standing at the rear left side of the mower, grasp the lower handle crossbar with one hand and lift the rear of the mower. On 21" mowers, pull the rear wheel height adjuster arm back ward and down to the same notch selected for the front wheels. Let the arm go forward to engage it, making sure the tab on the handle bracket is fully engaged in the notch

on the arm. On 19" mowers, push the adjusting tab toward the wheel, out of its notch, and rotate the wheel to the same position as the front wheels. Check all adjusters again to be sure that all tabs are in the same respective notches. Move the mower over a flat surface to check that all four wheels are rolling.

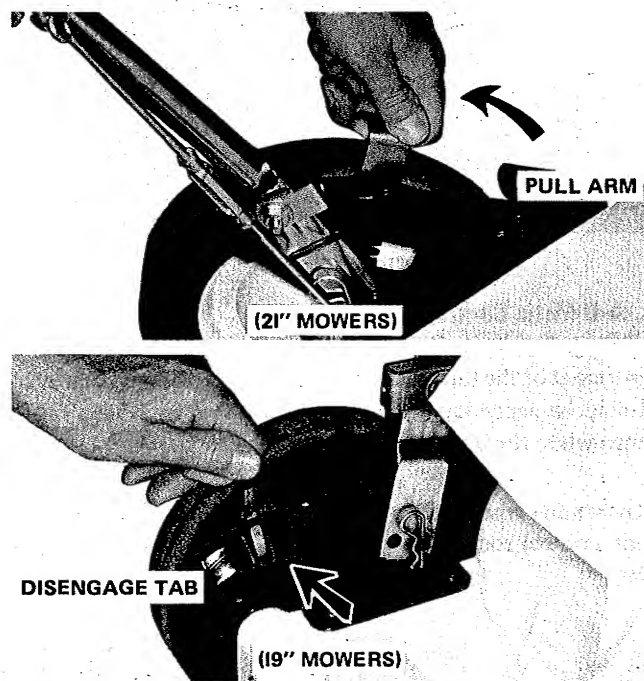


FIGURE 22

### Wheel Height Adjustment on Mfg. No. 678

1. Remove the plastic cap from the center of the wheel.
2. Remove the hex headed bolt from the wheel by turning counter-clockwise.

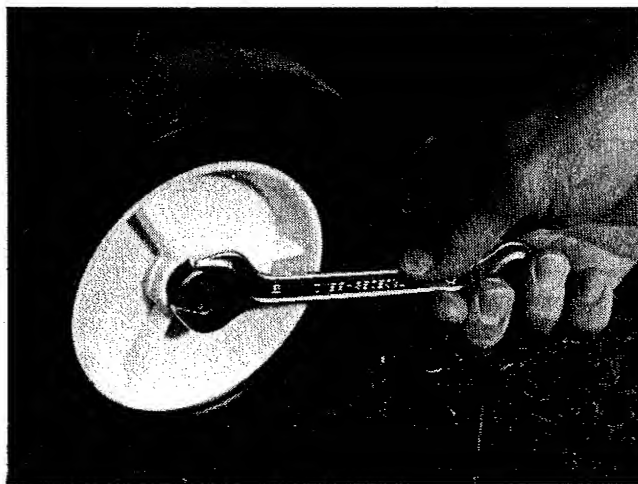


FIGURE 23

3. Reposition the bolt and wheel assembly in the desired hole of the bracket. The bracket at each of the four wheels has five holes which can be selected. Be sure to place the

bolt in the same hole of each so the mower will be level.

4. Tighten the bolt securely. Check to insure the wheels turn freely.



FIGURE 24

### Touch-O-Matic Control Adjustment (Self Propelled Units Only)

Adjustment of the turnbuckles on the Touch-O-Matic control rod may be necessary if one or both of the drive wheels fail to turn when the control is fully engaged forward.

1. Determine which roller is slipping. Loosen both locknuts of the control rod turnbuckle on the side with the slipping roller.

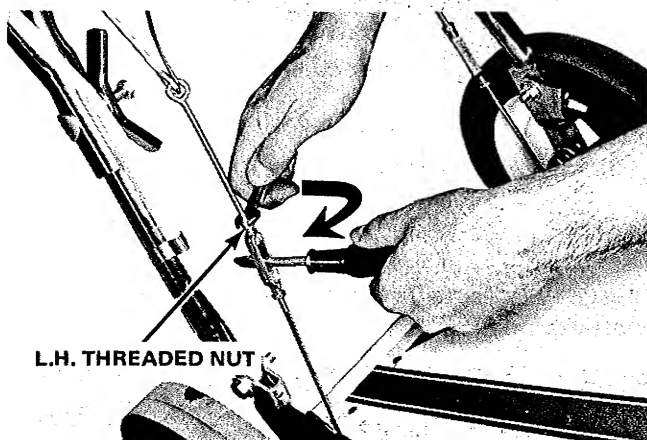


FIGURE 25

2. Rotate the turnbuckle clockwise (viewed from top) 2 turns at a time until the roller stops slipping. Retighten both locknuts securely.

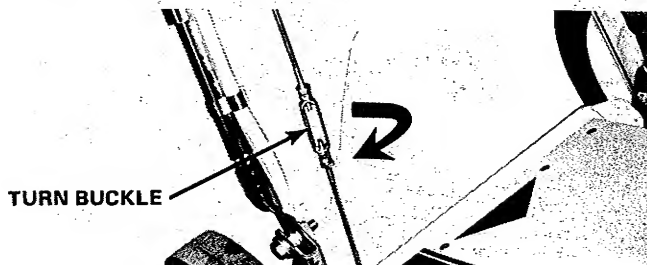


FIGURE 26

### HANDLE HEIGHT ADJUSTMENT

The height of the handle (in operating position) is adjust-

able for the convenience of short or tall operators. The lower position is most comfortable for persons 5'8" or less in height. To set the handle, proceed as follows:

1. Remove the spring clips which hold the handle lower end to the bracket pins. Stand at the right side of the mower, with your foot against the outer side of the right rear wheel.

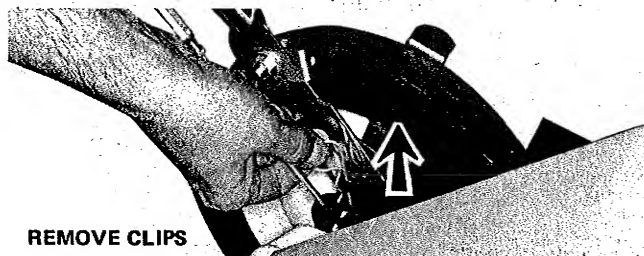


FIGURE 27

2. Raise the front edges of the handle locks. Push the handle forward to the vertical storage position.

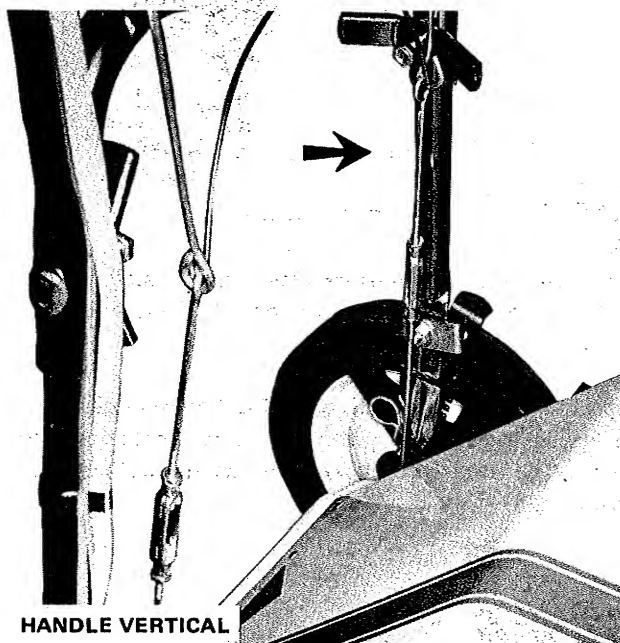


FIGURE 28

3. Pull the left leg of the handle inward toward you - until the hole in the lower end is clear of the bracket pin.



FIGURE 29



4. Move the forward hole of the handle onto the pin. Place your foot inside the right rear wheel. Then move the forward hole of the right handle end over the pin. Replace the spring clips. Remember, for TALL operators use the FORWARD hole, for SHORT operators use the REAR hole.

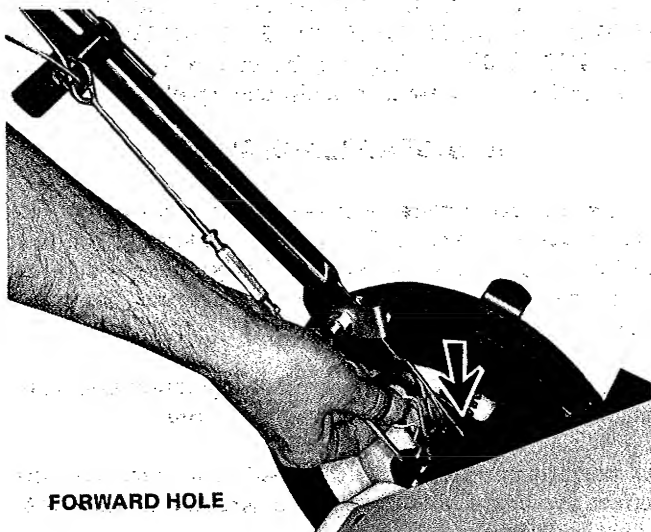
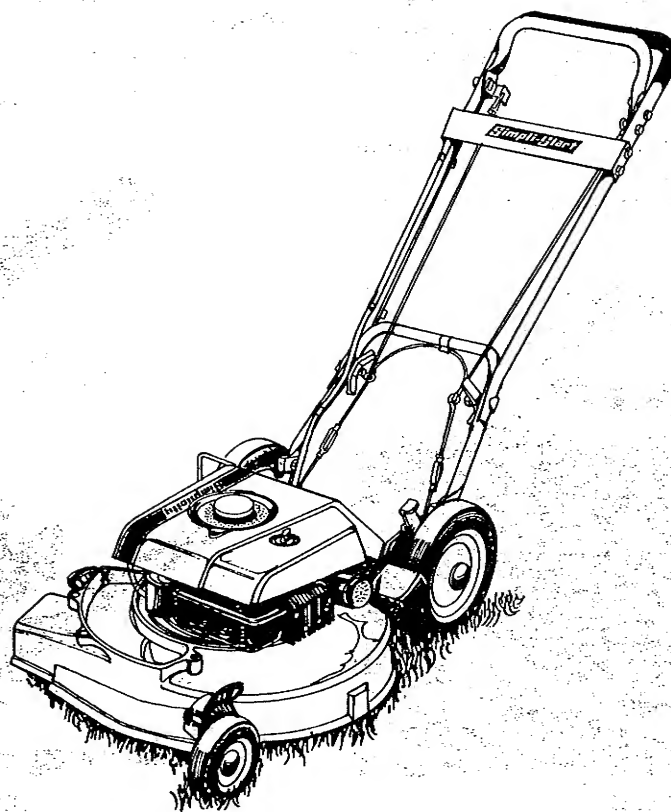


FIGURE 30



# MAINTENANCE

## CAUTION

ALWAYS TURN THE SPEED CONTROL TO "STOP" or REMOVE THE IGNITION KEY AND DISCONNECT THE SPARK PLUG WIRE BEFORE TIPPING THE MOWER. ON 21 INCH MOWERS, LIFT THE SPARK PLUG SIDE OF THE MOWER UP WHEN TIPPING. ON 19 INCH MOWERS, LIFT THE FUEL TANK SIDE.

## AFTER EACH USE

1. Wash the top of the mower and underside of the deck with a garden hose.
2. Check the oil level and refill as required.

## EVERY 10 HOURS

Once a month or every 10 hours of operation (whichever occurs first), put a drop of oil on the handle pivot points and the height adjusters. The self-propelling roller shaft, wheel bearings and pulley bearings are all greased and sealed, requiring no further lubrication.

## EVERY 25 HOURS

1. Change the crankcase oil and re-oil the air cleaner foam element every 25 hours of operation, more often under extremely dusty or dirty conditions. Oil should be drained when engine is warm. Refill with a good MS SAE 30 oil. (See Figure 34 for location of drain plug.)
2. Turn the screw on the air cleaner cover counter-clockwise to loosen. Remove cover. Wash the foam air cleaner element in kerosene or liquid detergent and dry it thoroughly. Saturate it with engine oil, squeeze out the excess and re-install. Be sure the lips of the element are in position when installing.
3. Remove the engine blower housing. Clean the screen and flywheel. Thoroughly clean the cooling fins on the cylinder and cylinder head to prevent damage from overheating.

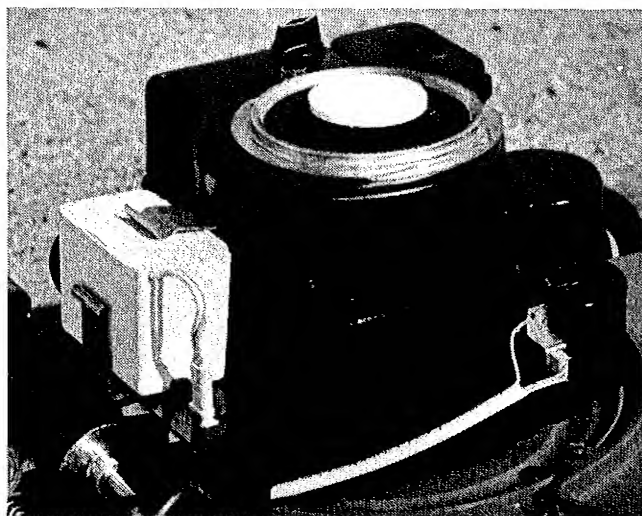


FIGURE 31

## EVERY 100 HOURS OR ONCE A YEAR

1. Remove the spark plug, clean or replace and set the gap at .030". DO NOT SAND BLAST PLUGS, AS THE ABRASIVE PARTICLES LEFT ON THE PLUG MAY DAMAGE THE ENGINE. Plugs may be cleaned by scraping or wire brushing and washing in a solvent or gasoline.

## BLADE REPLACEMENT

Inspect the blade closely after each use. Sharpen and remove small nicks with a file or stone. Deep nicks in the cutting edge can only be corrected by grinding, which requires that the blade be removed and balanced. See your Simplicity dealer for this service.

If you feel severe vibration when mowing, the blade is unbalanced. Have it balanced before further use.

Do not attempt to remove the blade until you have the correct size box, socket or open end wrenches for the blade mounting bolts.

1. Disconnect the spark plug wire and tip the mower up from the proper side. Remove the two blade mounting bolts and lockwashers. DO NOT remove the center bolt which holds the blade stiffener to the crankshaft. Remove the blade from the stiffener. To sharpen the blade yourself, clamp it in a vise and use a 10 inch file along the original bevel. File to a razor edge. To balance, insert a knife blade or small rod through center hole to see if blade rests with both ends balancing evenly. File heavy side until even.

ALWAYS HANDLE THE BLADE WITH CARE TO AVOID INJURY.

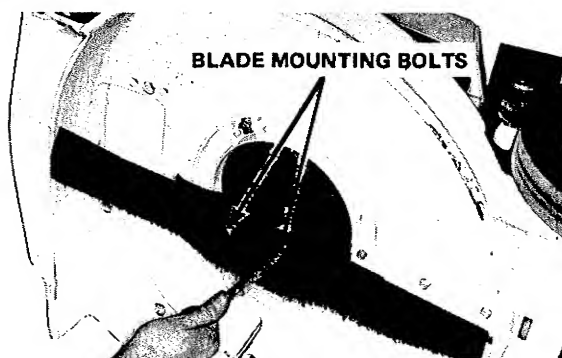


FIGURE 32

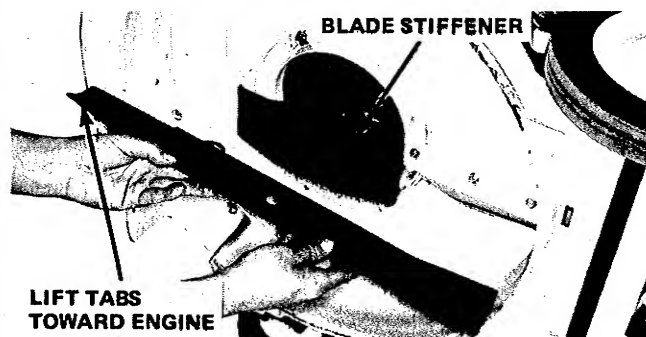


FIGURE 33

2. Carefully clean the blade and stiffener. Install the new or sharpened blade with the lift tabs toward the engine. Place the blade onto the stiffener with the blade center hole over the stiffener mounting bolt head. Install the two blade mounting screws and lockwashers. Use a wooden block or wedge to keep the blade from turning. Tighten the bolt alternately 2 turns at a time to 17 - 20 ft. lbs. torque.

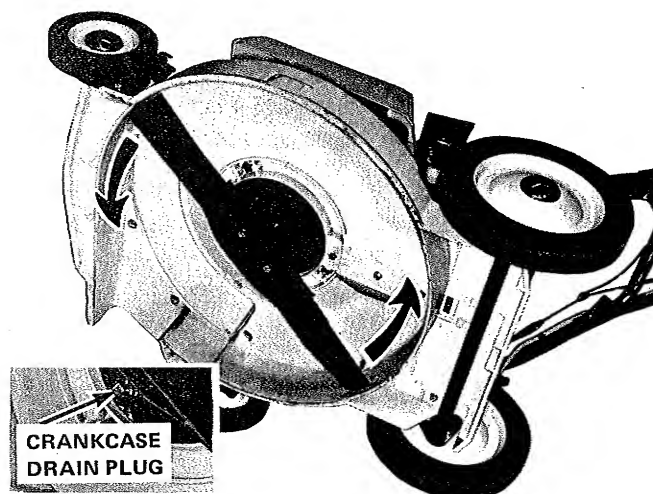


FIGURE 34

3. Rotate the blade counter-clockwise by hand to be sure it clears the housing all around and the tips are running true. Tip the mower back down onto the wheels and connect the spark plug wire.

### DRIVE BELT REPLACEMENT (Self-propelled Models Only)

1. Place the Touch-O-Matic control bar back in neutral position and swing the engine cover up. Remove the battery mounting bracket screws from the deck and move the battery and bracket aside for access to the belt.

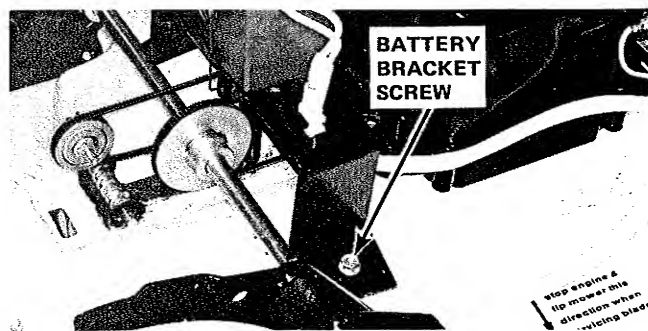


FIGURE 35

2. Push the spring-loaded vertical idler pulley arm forward and lift the belt up and off the horizontal pulley.

3. Disconnect the spark plug wire and tip the mower up from the proper side. Rotate the blade aside and remove the bolt which holds the belt shield in place.

4. Move the shield sideways toward the crankshaft and work it out toward you to remove it. Slip the belt off of the drive pulley and push it through the deck opening toward the roller drive shaft to remove it.

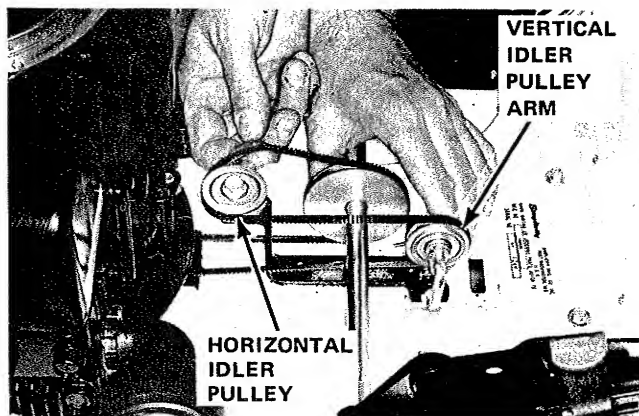


FIGURE 36

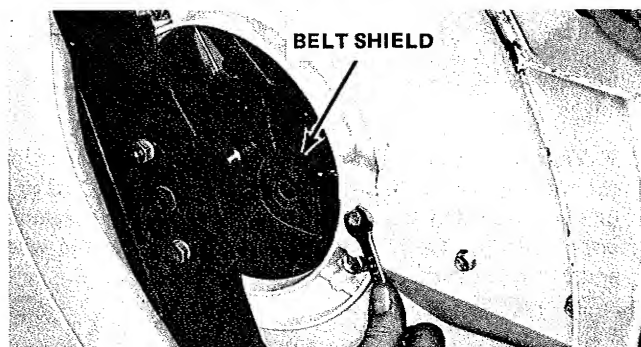


FIGURE 37

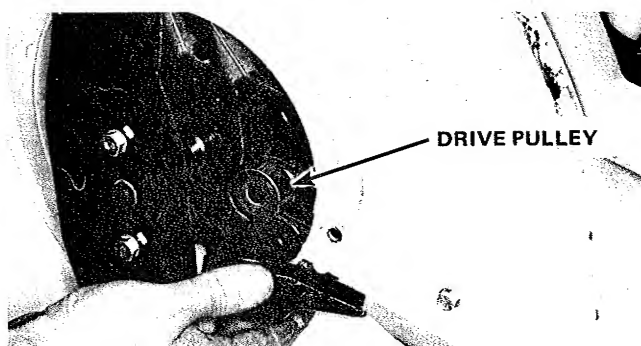


FIGURE 38

5. Insert the new belt through the deck opening from the rear of the mower toward the front. Place the belt onto the drive pulley, making sure it is seated in the groove properly. Hold it in place by tension while tipping the mower back down onto the wheels. Route the belt under the roller drive shaft, around the drive shaft pulley and the vertical idler pulley. Make certain that the twist matches the illustration.

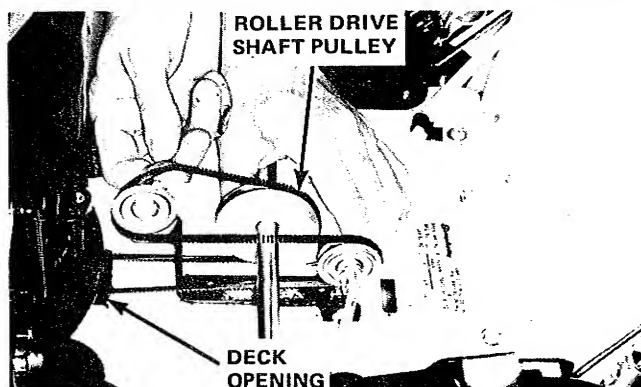


FIGURE 39

6. Push the vertical idler pulley arm forward and loop the belt over the pulley. Release the idler arm tension and check the belt again to see that it is correctly twisted. With the spark plug cable still disconnected, pull the starter handle or crank electrically a brief time to observe the action of the belt, pulleys and rollers. The rollers should be turning clockwise when viewed from the left side of the mower.

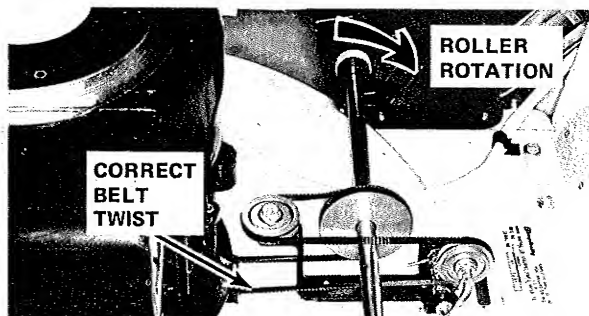


FIGURE 40

7. Tip the mower back up from the proper side and inspect the drive pulley to be sure the belt is properly seated in the groove. Reinstall the belt shield and tighten the mounting bolt securely. Tip the mower back down onto the wheels and connect the spark plug wire.

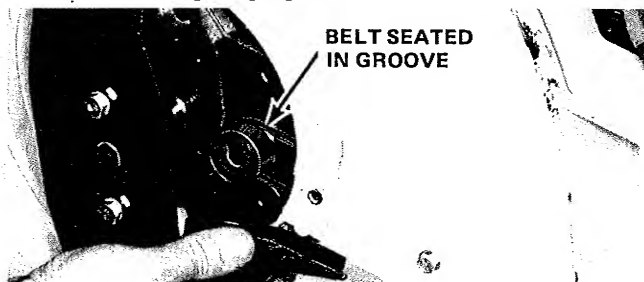


FIGURE 41

### BATTERY (Electric Start Models Only)

The sealed, Lead-Acid battery requires no water or liquid electrolyte. It can be stored or placed in any position with no danger of damage. The only attention required is that of periodic re-charging. It need not be re-charged during the off-season. Prolonged storage will cause no harm.

#### NOTE

When the battery charge is too weak to crank the engine, do not continue the attempt to start or serious damage to the battery may result.

#### RE-CHARGING

1. If Energette has not been used for an extended period of time (brand new in the carton, off-season storage, etc.), charge it for 48 hours or more to restore full charge.
2. Charge Energette 24 hours once a month during the cutting season.
3. Charge Energette 48 hours or more before and after off-season storage.
4. Store Energette in a cool place. Storage temperatures of 100°F or more accelerate self-discharge and should be

avoided. If storage is for long periods, charge Energette for 48 hours or more every 6 months.

5. The Energette has built-in protection against overcharge and will not be damaged if left on charge for extended periods. Charging longer than 72 hours should be unnecessary.
6. Charging is most effectively performed near room temperature (75°F). Charging at sub-zero temperatures is not detrimental but requires more time. Charging at elevated temperatures can be harmful.

USE ONLY THE CHARGER SUPPLIED WITH YOUR MOWER. OTHER CHARGERS MAY PERMANENTLY DAMAGE ENERGETTE.

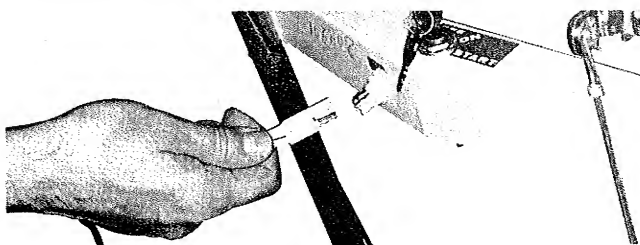


FIGURE 42

**BATTERY REMOVAL:** Disconnect the battery plug by pulling straight UP. Push the battery retaining brackets to the front and up to remove the battery. The battery can be re-charged by connecting the charger cable to the battery plug, if desired. Always make sure that connectors are fully seated into opposite sockets.

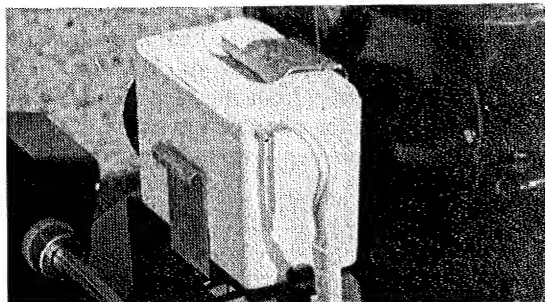


FIGURE 43

### OFF-SEASON STORAGE

1. Drain the fuel tank completely by running the engine until it stops. If desired, fuel can be stored in containers or in the tank by using STA-BIL brand gasoline stabilizer, available at your Simplicity dealer. Add a can capfull of fuel in the tank or follow the directions on the can for containers of other capacity. This additive prevents formation of gum and varnish for up to one year, providing easier starting and a clean fuel system.
2. Drain and refill crankcase while engine is warm.
3. Remove spark plug, put 1 oz. 10W-30 oil into cylinder through plug hole. Crank engine a few times to distribute oil. Re-install plug.
4. Clean dirt and chaff from cylinder head fins and engine housing.



## UNFOLDING HANDLE

### FOLDING HANDLE MODELS ONLY

1. Loosen both handle-locking wingnuts all the way out against the retaining nuts.

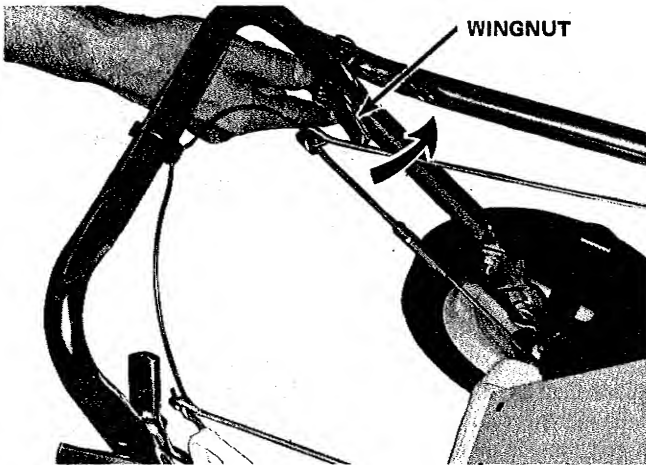


FIGURE 44

2. Stand on the left side of the mower. Place your right foot behind the left rear wheel. Grasp the upper section of the handle and pull it all the way up until the handle sides snap firmly into place.

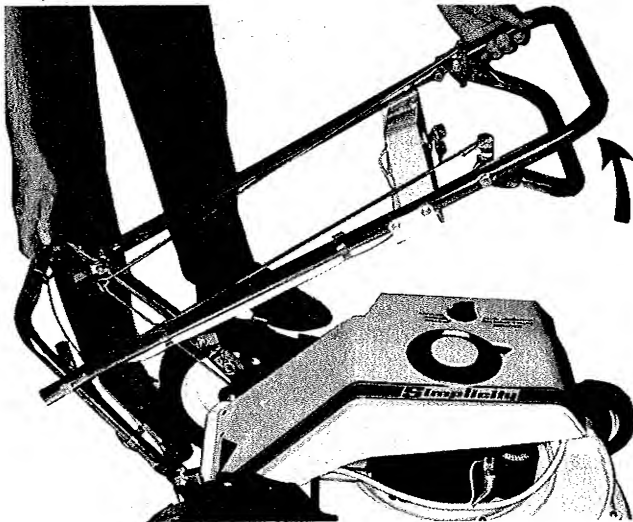


FIGURE 45

3. Tighten the two wingnuts securely.

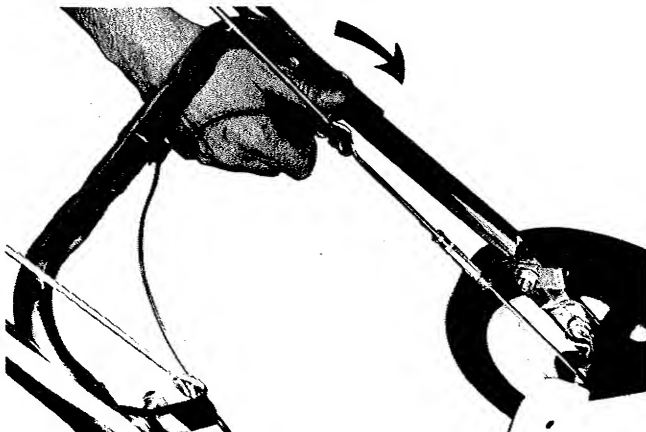


FIGURE 46

## FOLDING HANDLE

1. If the grass catcher is installed, unhook the bag, pull the retaining spring clip out of the support pin and remove the catcher support. It is not necessary to remove the bag from the chute.

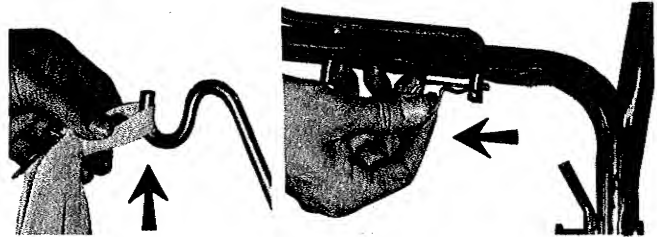


FIGURE 47

2. Loosen the handle-locking wingnuts all the way out against the stop nuts.

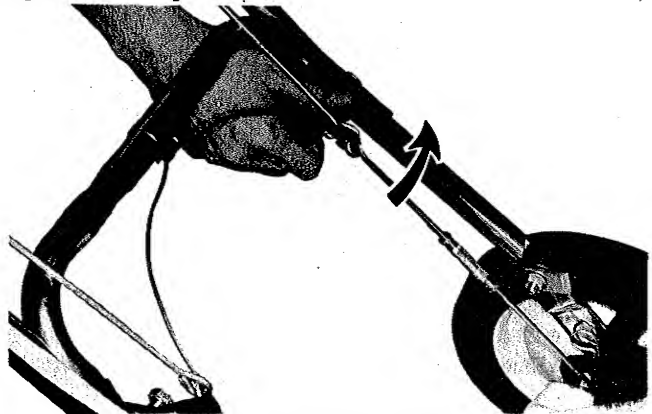


FIGURE 48

3. On self-propelled models, move the Touchamatic control bar back (to neutral).



FIGURE 49

4. Stand at the left side of mower. Place your right foot in front of the left rear wheel. Grasp the top of the handle and move it forward and down, until it rests on the engine cover.

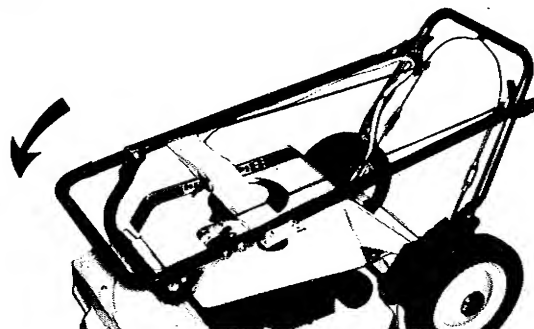


FIGURE 50

## HANDLE VERTICAL POSITION

To move the handle to its vertical storage position, it is not necessary to remove the catcher bag support.

1. Lift the front edges of both handle locks to clear the stops - first one side, then the other, and hold in lifted position.

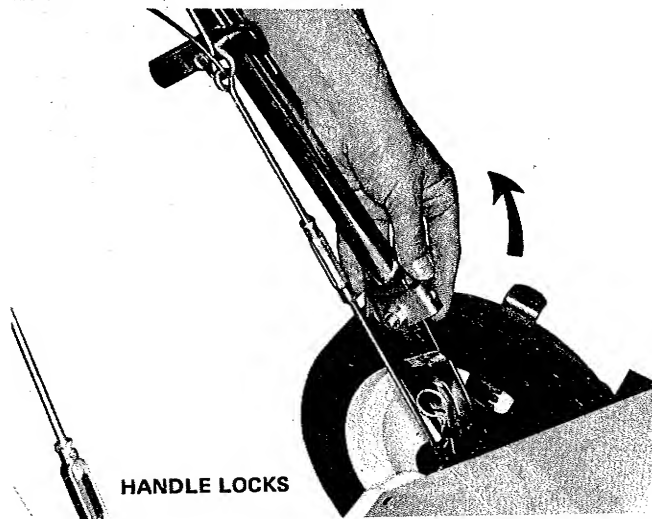


FIGURE 51

2. Push the handle forward to vertical position. It will remain there until pulled back. The locks automatically fall back into place when the handle is again moved to operating position.

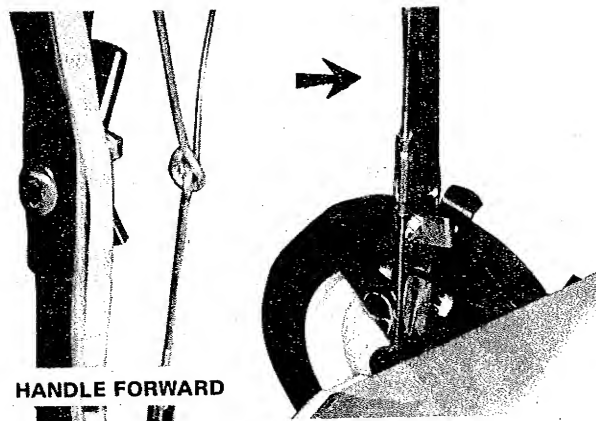


FIGURE 52

## REPLACEMENT PARTS

Replacement parts for your Simplicity equipment should be purchased from your Simplicity dealer. Be prepared to give him the mower model, and the manufacturing and/or serial number found on the plate pictured below.

USE ONLY SIMPLICITY BELTS AND BLADES.

**SIMPLICITY MANUFACTURING CO., INC.**  
**PORT WASHINGTON, WIS., U. S. A.**

**Refer to i.d. no. when  
writing or ordering parts.**

**I. D. No.**

# SPECIFICATIONS

1971 SIMPLICITY			MFG. NO.	21" HAND-PROPELLED MANUAL START	21" SELF-PROPELLED MANUAL START	19" HAND-PROPELLED ELECTRIC START	21" SELF-PROPELLED ELECTRIC START	19" HAND-PROPELLED MANUAL START	19" PROMOTIONAL
19 AND 21 INCH ROTARY MOWER SPECIFICATIONS				679	680	666	681	676	678
ENGINE	MAKE BRIGGS & STRATTON	Model No. 92908	•					•	
		Model No. 92998		•					
		Model No. 92995				•			
	MANUAL STARTER	Geared Re-Wind, Vertical Pull	•	•			•		
		Easy Spin, Side Pull Model No. 92905			•			•	
		Rope (Emergency) - Side Pull			•	•			
	ELECTRIC STARTER	BATTERY: Sealed Lead-Acid Type VOLTAGE: 14.7 (Nominal) CURRENT CAPACITY: 2 Amp. Hr. at 20 Hr. Rate CHARGING: Trickle - 100 Milliamps (Furnished STARTS PER CHARGE: 100 or More				•	•		
	■ HORSEPOWER: 3 ■ 3½		•	•	•	•	•	•	•
	■ CYCLES: 4 ■ CYLINDER: 1 ■ BORE: 2-9/16" ■ STROKE: 1-3/4" ■ DISP: 9.02 Cu. In. ■ OIL CAPACITY: 1-1/4 Pts. (Gear Impeller System) ■ FUEL CAPACITY: 1 Qt. ■		■ Sealed Air Cleaner (Oiled Foam) ■ Air Vane Governor ■ Automatic Choke w/Purge Pos. ■ High-Tension Magneto Ignition ■ Quiet Muffler with Low Back Pressure ■ High-Carbon Nodular Iron Crank Shaft ■ Zinc Flywheel Key	•	•	•	•	•	•
MOWER HOUSING	MATERIAL: Die Cast Magnesium DISCHARGE LOCATION: Right Front Corner CATCHER LOCATION: Through Deck		•	•	•	•	•	•	•
	DECK DEPTH: 3-3/8" Above Blade		•	•		•			
	DECK DEPTH: 3-1/4" Above Blade				•		•	•	
	TRIM OVERHANG: 2" (Left Side Only)		•	•		•			
	TRIM OVERHAND: 1-1/2"				•		•	•	
BLADE AND DRIVE	Austempered Steel, Pre-Stressed Blade Direct Drive		•	•	•	•	•	•	•
WHEELS	ARRANGEMENT: Staggered		•	•	•	•	•	•	•
	MATERIAL: Steel, Ball Bearing Mounted with Felt Seals			•		•			
	MATERIAL: High-Density Plastic, Integral Bearings		•		•		•	•	
	DIAMETER - FRONT WHEELS: 6"		•	•	•	•	•		
	DIAMETER - REAR WHEELS: 10"		•	•		•			
HEIGHT ADJUSTERS	DIAMETER - REAR WHEELS: 8"				•		•	•	
	TYPE: 3-Point, Fingertip Adjusted POSITIONS: 6		•	•	•	•	•		
	MATERIAL: Steel-On-Steel, All Positions CUTTING HEIGHT: 7/8" to 2-7/8"								
	TYPE: Multiple Hole POSITIONS: 4								
HANDLE	MATERIAL: Steel-On-Steel CUTTING HEIGHT: 3/4" to 2-7/8"								•
	OPERATING POSITIONS: 2 – Handle Height Adjustable to 2 Positions STORAGE POSITIONS: 2 – Stand up and Fold		•	•	•	•	•		

**1971 SIMPLICITY**  
**19 AND 21 INCH ROTARY MOWER**  
**SPECIFICATIONS**

		MFG. NO.	21" HAND-PROPELLED MANUAL START	21" SELF-PROPELLED MANUAL START	19" HAND-PROPELLED ELECTRIC START	21" SELF-PROPELLED ELECTRIC START	19" HAND-PROPELLED MANUAL START	19" PROMOTIONAL
<b>SELF PROPELLED REAR WHEEL DRIVE</b>	CLUTCH TYPE: 1-1/8" Dia. Friction Roller							
	CLUTCH ACTION: Soft			•		•		
<b>DIMENSIONS</b>	CONTROL: Touchamatic							
	SPEED RANGE, GOVERNED: 2.16 to 2.75 MPH							
	SPEED RANGE, TOUCHAMATIC: 0 to Maximum							
	LENGTH (HANDLE IN HIGH POSITION): 59"		•	•		•		
	LENGTH (HANDLE IN HIGH POSITION): 53-1/4"				•		•	•
	LENGTH (HANDLE IN VERTICAL POSITION OR FOLDED): 33-1/4"		•	•	•	•		
	LENGTH (HANDLE IN VERTICAL POSITION OR FOLDED): 32-1/2"				•		•	•
	WIDTH (WITHOUT GRASS CATCHER): 25"		•	•	•	•		
	WIDTH (DISPERSING): 23"						•	•
	WIDTH (WITH GRASS CATCHER): 31"		•	•	•	•		
	WIDTH (CATCHING): 29"						•	•
	HEIGHT (HANDLE IN HIGH POSITION): 39.5"		•	•	•	•	•	•
			•	•		•		
					•		•	•
			•	•	•	•		

\*

**WEIGHT**

MFR. NO. 666	56
MFR. NO. 676	51
MFR. NO. 678	46
MFR. NO. 679	57
MFR. NO. 680	64
MFR. NO. 681	72
MFR. NO. 678	50

\* NON FOLDING HANDLES





***Simplicity***®

**POWERED OUTDOOR MAINTENANCE EQUIPMENT**

**SIMPLICITY MANUFACTURING COMPANY, INC.**

**PORT WASHINGTON, WISCONSIN 53074**

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

**SIMPLICITY MANUFACTURING CO., INC.**  
**Port Washington, Wis. 53074, U.S.A.**

